

Patent Claims:

1. Device for determining a tendency to tilt about the longitudinal axis and a tendency to turn about the vertical axis of a vehicle, using a detection system that comprises:
a lateral acceleration sensor producing a lateral acceleration signal, a yaw rate sensor producing a yaw rate signal, a steering angle sensor producing a steering angle signal, wheel speed sensors producing the rotation signals of the wheels, and which comprises a controller which, in response to the steering angle, the steering velocity and the vehicle speed, determines a tendency to tilt about the longitudinal axis of the vehicle and which, in response to the lateral acceleration sensor, the yaw rate sensor, the steering angle sensor and the wheel speed sensors determines a tendency to turn about the vertical axis of a vehicle, and with the controller generating a triggering signal for at least one passenger protection means depending on the extent of these tendencies.
2. Device as claimed in claim 1,
c h a r a c t e r i z e d in that the triggering signal is allocated to the passenger protection means depending on the driving situation, so that a definition of the position of the passenger protection means being actuated in the vehicle takes place depending on the rollover and/or turning tendency of the vehicle in space.

3. Device as claimed in claim 1 or 2,
c h a r a c t e r i z e d in that the extent of the
tendency to tilt and/or the tendency to turn is
evaluated based on at least one of the quantities of
steering wheel angle, steering velocity, vehicle speed,
lateral acceleration, longitudinal acceleration.
4. Device as claimed in any one of claims 1 to 3,
c h a r a c t e r i z e d in that at least one
threshold value of the triggering signal is varied.
5. Device as claimed in claim 1,
c h a r a c t e r i z e d in that at least the lag of
release is varied as a threshold value.
6. Device as claimed in any one of claims 1 to 5,
c h a r a c t e r i z e d in that the service life of
the passenger protection means is modified depending on
the driving situation.
7. Device as claimed in claim 1, 2, or 6,
c h a r a c t e r i z e d in that the passenger
protection means is an airbag.
8. Device as claimed in claim 1,
c h a r a c t e r i z e d in that the passenger
protection means is a reversible belt pre-tensioning
system.
9. Device as claimed in claim 8,
c h a r a c t e r i z e d in that the triggering
signal for the reversible belt pre-tensioning system is
allocated to said depending on the driving situation,

so that a definition of the position of the pre-tensioning system being actuated in the vehicle and/or the point of time of release takes place depending on the rollover and/or turning tendency of the vehicle in space.

10. Device as claimed in claim 8 or 9,
c h a r a c t e r i z e d in that the point of time of release of the belt pre-tensioning system being actuated occurs according to the ARP-intervention so that the ARP-intervention and the belt pre-tensioning system are activated simultaneously.